

ABSTRACT

An audio/video production system facilitates professional quality image manipulation and editing using an enhanced general-purpose hardware. A program input may be translated into any of a variety of graphics or television formats, including NTSC, PAL, SECAM and HDTV, and stored as data-compressed images, using any of several commercially available methods such as Motion JPEG, MPEG, etc. While being processed, the images may be re-sized to produce a desired aspect ratio or dimensions using conventional techniques such as pixel interpolation. Frame rate conversion to and from conventional formats is performed by using the techniques employed for film-to-NTSC and film-to-PAL transfers, or by inter-frame interpolation, all well known in the art. By judicious selection of the optimal digitizing parameters, the system allows a user to establish an inter-related family of aspect ratios, resolutions, and frame rates, yet remain compatible with currently available and planned graphics and television formats.